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COMBAT HISTORY ANALYSIS STUDY EFFORT (CHASE)

DATA ENHANCEMENT STUDY (CDES)

Vol II: Task 1

Final Report 31 January 1986

Prepared for the
US Army Concepts Analysis Agency
Bethesda, Maryland

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36. ABSTRACT (Castinue as reverse olds if necessary and identify by block number)

This final report contains enhanced data and corrections of omissions, inconsistencies, and ambiguities for a 1984 study performed by HERO for USACAA entitled "ANALYSIS OF FACTORS THAT HAVE INFLUENCED OUTCOMES OF BATTLES AND WARS: A DATA BASE OF BATTLES AND ENGAGEMENTS" (Contract No. MDA903-82C-0363). It has been performed in order to make the data base contained in the 1984 study applicable for use in U.S. Army studies and analyses, concept formulations, and wargaming. It contains enhanced and

SECURITY CLASSIFICATION OF THIS PAGE(# 20. corrected data from the original data base, newly developed data, and responses to specific questions and problems formulated by USACAA in its transcription of the data base to computerized format. Volume I contains introductory materials, Volumes II-V, the main body of the report, contain the results of nine tasks developed by USACAA.

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Task 1: Analysis of Data Base Problem Reports

The purpose of this task is to address problem reports compiled by CAA during its transcription of the data base into computerized format. The problem reports are divided into three groups: general, specific, and consistency.

The fifteen general problem reports deal with matters common to several engagements. They are generally addressed by text. Each general problem report is shown and followed by a response. Three of them, 1-3, are answered in part by text and in part by entries in tables addressing other tasks of this report. See general problem reports 1-3 for details.

The specific problem reports deal with matters related to a single data item for individual engagements. They are for the most part addressed in tabular format. However, text is required to answer certain specific problem reports. On the tables addressing the specific problem reports, the column heading Data Cell refers to the data cell in the original data base where a data entry is questioned; the column heading Change From refers to the actual data entry in the original data base; and the column heading Change To refers to the new data entered if the entry in the original data base has been revised.

The engagement name and number and its location in the original data base by volume, page, and table number are provided for each revision.

The consistency problem reports deal with the consistency of two or more data items for an individual engagement. They are addressed in a tabular format similar to the form used for the specific problem reports. For an explanation of the abbreviations used in tables addressing the specific and consistency problem reports, consult the list of abbreviations compiled in Volume I of this study.

Engagements which have a mission accomplishment score of 10 in the original data base have been included in the consistency problem reports. (See General Problem Report #4.) Any changes made in these scores are shown on the consistency problem report tables. Consistency problem reports for which no changes were made are presented at the end of the consistency problem report tables.

An asterisk after an engagement number indicates that there is an explanatory footnote for the engagement. Footnotes for all problem reports follow the tables addressing the consistency problem reports.

Note that for some entries in the specific and consistency problem report tables, two figures are presented separated by a diagonal line (N/x, for example). The figure to the left of the diagonal line should appear in the attacker's row on the tables in the original data base. The figure to the right of the line belongs in the defender's row. However, this does not apply to entries for Defender Posture, Terrain, Weather, and Season in Table 2 of the original data base. In these cases, a diagonal line is used to separate two or more entries for these data cells. No confusion should arise because the latter entries are not given separately for the attacker and defender.

General Problem Reports

General Problem Statement:

1. The value of KPDA (Attacker's Average Daily Rate of Advance), as defined by HERO, apparently can never be negative.
Yet 25 battles have a negative KPDA. How come?

Response: HERO's intention was that a negative value for KPDA would indicate that an attacking force was ultimately driven back or withdrew and lost ground during the course of an engagement. HERO's revised definition for KPDA is: The distance, measured in kilometers, between the attacker's line of departure at the beginning of an engagement and the farthest point reached as of the end of the engagement by significant maneuver elements of the attacker in his advance or retrograde movement, divided by the number of days of the engagement, with a portion of a day counted as a full day. The duration value is shown under the column heading "Duration (days)" on Table 1 of the original data For forward movement, the distance is measured along the attacker's axis of advance. A positive value indicates that the attacker had a net advance and ultimately gained ground, and a negative value shows that the attacker was forced back by the defender and ultimately lost ground. Therefore, KPDA is average daily net displacement rate over the entire course of the engagement, as described above.

Following is a list of engagements with KPDA values checked by HERO to verify that they were assigned correctly according to the new definition for KPDA. These include all engagements with values of "0," "N," or negative numbers. Also included are engagements for which KPDA data had not been found in the original data base, and engagements with corrected data. Those engagements for which data was not found in the original data base and for which data could not be found for this study are assigned values of "?". For the first 247 engagements, KPDA values were presented in Tables 3 and 5 of the original data base. Any engagement with different values in these tables (usually the result of a typographical error) is included in the following list, and the correct value for the engagement is given.

HERO has reassessed all engagements with the values of "N" and assigned a negative value or a value of "Ø" for all such engagements. Two asterisks after an engagement number indicate that a KPDA value of "N" has been changed to "Ø." A single asterisk after an engagement number alerts the user to any other change in a KPDA value. Footnotes follow the consistency problem reports.

Engagement #	KPDA	Engagement #	KPDA	Engagement #	KPDA
10	-6.4			250	?
4	-2.0	125	0	252*	3.3
6	-2.0	128	0	255*	-0.4
10*	-2.5	129	0	257	0
11*	1.0	130*	-2.4	261	0
120	1.0	131	0	275	0
140	2.0	135	0	276	.0
16*	-2.0	136*	5.0	277	1.3
19*	3.0	137 140 *	-5.0 l	296 297	ŏ
22 24 =	-0.5 l	141	0	298	ŏ
26	?	144	ŏ	299	ŏ
33	?	145	-2.0	306**	Ö
34	?	146*	0.2	310	0
37	?	147**	0	312**	0
38*	6.4	148**	0 1	326	0
39 42	-1.0	149**	0	327	0
	?	153	-1.0	333	0
47*	2.4	156*	0.3	338	0
48*	1.0	159**	0	343	0
49 * 54	-6.0	166	0	344	0
56 *	? -2.7	167 170	? !	345 301#	-1.6
66	-1.0	172	-1.2	391 * 402	Ö
68*	1.0	177**	0 1	405	Ŏ
69	-2.0	180*	1.6	415	-1.6
74	-1.0	181	0	424	0
75*	2.0	182	1.6	433	0
76**	0	183*	0.8	442	0
78 80*	?	184	0_	443 466	0
83*	-1.0	185 * 186	0.5	467 *	-0.8
87*	1.0	187	ŏ	483*	3.2
89*	-3.2	196*	-0.8	489*	5.5
92	-1.0	202	0	497	0
92 96**	0	203*	0.2	525	
98**	0 1	205	0	526	0
101**	0 1	206	0	528	0
104**	0	207**	0	531 561	0
107*	-1.6	228*	2.7	561	0
109**	0	229 231*	-20	564 573*	Ü
111**	ŏ	233*	-2.0 2.0	574	ŏ
115	-3.0	537	-2.7	575	Õ
116**	0	235*	10.0	588**	ō
117	-7.0	234 235* 237**	0	589	Ŏ
119	-6.0	238**	0	592**	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
120 * 122	3.8 1	239 ** 245	0 1	592 ** 593 596	0
122	0 ;	245	-1.7	596	-2.0
123	0	246 **	0	598	0
124	-1.0	248 249	?	599 600	-2.0 0 0 0
	•		• •	~~~	•

2. There is moderately strong reason on statistical grounds, to believe that for some battles, some or all of the values in data cells NAMA, NAMD, XØ, YØ, CX, CY, and WINA may perhaps be inaccurate. At any rate, there is enough evidence to justify a careful review of this data to either confirm its accuracy or to suggest improved values for those battles.

Response: Data for the 95 engagements listed below has been reviewed. A single asterisk following an engagement number indicates that personnel strength and/or casualty data (XØ, YØ, CX, CY) has been revised. New data is located in the tables in Volume III of this report addressing Task 2, Clarification of the Total Engaged Personnel Strength Data. Two asterisks after an engagement number indicate that a change has been made in the assignment of victory (WINA, the "attacker's relative level of victory," as described by CAA). The revised assignment of victory is located in the tables in Volume III of this report addressing Task 3, Clarification of the Basis for Assigning Victory.

Engagement #	Engagement #	Engagement #
15_	376 379**	459
200	379**	462 465**
36**	394	472
53 66	395 396**	479**
81*	397	482**
82	398	483
84	400	489
93	401	491*
95	403	492
120**	406	496
152	408	508
176	409	513
186*	410	525
193	411	526
196*	413	527
198	419	532
210	422	533**
223	423	539 ** 540
236	425	540
250*	427	543**
265	428	544**
290	430	558
293	433	568*
296	442	579
297 299	443 447	585 586
307	448**	588
311	449	592
314	451	593
316	452	600
374*	454**	

3. What are the correct values of the missing data in the following engagements?

Engagement #	Data Cell(s)	Engagement #	Data Cell(s)
26	СХ	292	YO
40	CX,CY	300	CY
216	CY	301	CY
248	CY	391	CX,CY
254	CX	461	CX
267	CX	469	CY
289	XO, YO	484	CX,CY
291	XO, YO	485	CX,CY

Response: The correct values for the missing data listed above are found in the tables in Volume III of this report addressing Task 2, Clarification of the Total Engaged Personnel Strength Data.

General Problem Statement:

4. The battles with ACHA = 0 or 10, and with ACHD = 0 or 10 are shown below. Explain these data. Why no battles with ACHA or ACHD equal to zero? How come the proportion of battles with ACHA or ACHD equal to 10 is so high for the first 100 battles?

Resonse: HERO's review of the mission accomplishment (ACHA and ACHD) and level of victory (WINA) data, performed for the consistency problem reports and Task 3, Clarification of the Basis for Assigning Victory, revealed that some assigned mission accomplishment scores of 10 were too high. In HERO's judgement, a combat force's mission accomplishment rarely merits such a score. Conversely, it is HERO's judgment that no force has performed so

poorly as to deserve a score of 0. If a force appears on the battlefield, it should warrant at least a score of 1.0.

The following list identifies engagements from the original data base with mission accomplishment scores of 19. An asterisk after the engagement number indicates that the score has not been revised. If the score has been revised, no asterisk follows the engagement number. The new score is found in the tables in Volume III of this report addressing Task 3.

Exceptional success was often achieved by combat forces in a large proportion of the first 100 battles of the data base. This success is reflected in high mission accomplishment scores in a large number of the first 100 battles.

Engagement #	ACHA or ACHD?	Engagement #	ACHA or ACHD?
4	ACHD	85	ACHA
11	ACHA	92	ACHD
12	ACHA	192	ACHA
13	ACHA	108	ACHA
14	ACHA	117*	ACHD
17	ACHA	118	ACHA
19	ACHA	119*	ACHD
23	ACHA	150	ACHA
26	ACHA	151	ACHA
28	ACHA	154	ACHA
31	ACHD	155	ACHD
38	ACHA	156	ACHD
40	ACHA	194	ACHD
42	ACHA	196*	A CHD
43	ACHA	233	ACHA
46	ACHA	288	ACHA
47	ACHA	327	ACHD
48	ACHA	510	ACHA
50	ACHĂ	521	ACHA
51	ACHA	526	ACHD
52	ACHA	536	ACHA
54	ACHA	537	ACHA
59	ACHA	556	ACHA
69	ACHD	574	ACHD
79*	ACHA	575	ACHD
73	ACHA	584 (HERO #5	
78	ACHA		

5. Clarify what side the outcome descriptors refer to. For example, does "pursued" listed under the defender mean the defender was pursued and the attacker did the pursuing, or does it mean that the defender did the pursuing?

If "Annihilated" is entered as an outcome descriptor, Response: this indicates that the side under which it is entered was annihilated by its opponent. If "Pursued" is entered as an outcome descriptor, this indicates that the side under which it If "Withdrew with serious loss" is entered pursued. "Withdrew" is entered as an outcome descriptor, this indicates that the side under which it is entered withdrew. If "Breakthrough" is entered as an outcome descriptor, this indicates that the side under which it is entered achieved a breakthrough. "Penetration" is entered as an outcome descriptor, this indicates that the side under which it is entered penetrated. If "Repulse" is entered as an outcome descriptor, this indicates that the side under which it is entered was repulsed by its opponent. "Stalemate" is entered as an outcome descriptor, this indicates that the side under which it is entered was stalemated by its opponent.

6. Definition of momentum is obscure.

Response: The definition of momentum has been revised and now reads: Continuing forward movement of a military force, as a result of previous success in combat, which is presumed to provide an additive or multiplicative bonus to its combat capability.

General Problem Statement:

7. How are the defensive posture entries from Table 2 related to those implied by the concept of operations given in Table 7?

Response: Defensive posture entries from Table 2 are generally related to those presented under Main Attack and Scheme of Defense in Table 7. Entries in Table 2 describe the defender's level of resistance to, or protection from, any and all forms of enemy attack at the start of an engagement and, if applicable, during the course of an engagement (i.e., over time for some prolonged engagements—see the definitions of combination and average posture descriptors in Vol. V, p. 1, of the report). Defensive posture may be essentially static, and not change. However, if the defender counterattacks or shifts to an offensive posture during the course of an engagement, these changes and a general description of them are noted in Table 7.

8. How can fortifications favor the attacker?

Response: A review of the original data base revealed that fortifications were incorrectly presented as affecting engagement outcome in favor of the attacker in six engagements. In HERO's judgement, fortifications can not favor an attacker. Two of these cases contained typographical errors. Fortifications favored the defender, not the attacker, in engagements \$81 and \$546. In engagement \$245, fortifications were incorrectly assessed to have favored the attacker and defender. In fact, they helped only the defender. Also, fortifications did not favor the attacker, as incorrectly shown in the original data base, in engagements \$54, \$599 and \$591. Therefore, the revised values, located in the specified volumes of the original data base, are as follows:

Eng.	Vol.#	Pg.#	Change From:	Change To:
54	11	92	x/(blank)	N/(blank)
81	II	142	x/(blank)	(blank)/x
245	III	13	x/x	(blank)/x
546	VI	119	x/(blank)	(blank)/x
590	VI	199	x/(blank)	N/(blank)
591	VI	199	x/(blank)	N/(blank)

9. Some battles (or campaigns) are subdivided into many segments (Italy, Okinawa, etc.). Others are not (Defense of Moscow, etc.). Doesn't this affect the relative statistical weights unreasonably?

Response: The data base contains data for significant combat encounters between hostile forces at various levels of aggregation from battalion to army group. HERO recognizes that the manner in which battles are or are not subdivided may unreasonably affect the relative statistical weights of the data. However, the variety of the types of combat encounters provided in the data base, ranging from prolonged battles involving army groups to single-day small unit actions, may allow the analyst to study combat encounters of different sizes.

General Problem Statement:

10. Desert is a topography and climate, not a season, and therefore doesn't serve to delimit the hours of daylight.

Response: Season descriptors in the data base consist of two parts. The first part describes the actual season, i.e., spring, summer, fall, or winter. The second gives the general climatic characteristics of the region where the engagement takes place, i.e., temperate (mild, neither excessively hot or cold), tropical (hot and humid, characteristic weather conditions of the Tropical

Zone but not necessarily in that geographical zone), and desert (arid). It is important to note that the second part of the season descriptor is not intended to identify a geographical zone bounded by specific latitudes (i.e., Temperate, Torrid, or Frigid Zones). Since most of the engagements in the data base occurred in the Temperate Zones, the <u>first part</u> of the season descriptor might be used to provide a rough measure of the hours of daylight in those zones.

General Problem Statement:

11. The Iwo Jima and Okinawa campaigns have a lot of battles where the same forces were engaged and fought at nearly the same time and places. (1) Opportunities for inter-battle correlation abound. (2) Opportunities for persistent bias on the part of the military historian abound.

Response: Some of the combat encounters in the data base are division-level engagements. These engagements frequently involve the same units in one area during a relatively short time span. Engagements from the Okinawa campaign of World War II, the 1967 Arab-Israeli War, and the 1973 Arab-Israeli War are examples. The division-level engagements of these conflicts are discrete combat encounters separated by historical start and stop times. HERO does not believe that there is any deliberate bias introduced by the historians.

12. The Arab-Israeli campaigns also involve a lot of fighting between the same units at nearly the same times and in the same type of terrain and weather. This could lead to correlations among the data for individual battles (or to a persistent bias in compiling the data).

Response: See the Response to the preceding General Problem Statement.

General Problem Statement:

13. For some campaigns, two units of one side engaged one unit on the other side (e.g., The battles of Suez and Adabiya of page 180 of Vol. VI) -- yet this is reported by HERO as two distinct engagements. But how can one tell which of these engagements really had what kind of influence on battle outcome?

Response: The two examples given for the problem report are in fact two distinct engagements. The Battle of Adabiya, 23/24 October 1973, involved the Israeli Magen Division and elements of the Egyptian Third Army. The Battle of Suez, 23-24 October 1973, involved the Israeli Adan division and elements of the Egyptian Third Army (not the same elements that were engaged at Adabiya). The Egyptian Third Army in the 1973 Arab-Israeli War was composed of about half a dozen infantry, armored, and mechanized divisions and other units. Because the space for entry in the "Forces" (NAMA and NAMD) cells of the data base is limited, all individual

units of a side frequently can not be entered in the report. In some cases, the designation of the largest participating unit, modified by a reinforced (+) sign to indicate other units, is entered. Or, as in the case of the above mentioned engagements, the designation of the next largest unit, the Egyptian Third Army, is entered and modified by a minus sign.

General Problem Statement:

14. Check the battles to see that designated WINA is consistent with resolution. Specifically, how is WINA scored when RESO is listed as a stalemate? Several battles are listed as stalemates, but victory is not marked as a drawn battle.

Response: In assigning victory in a engagement, HERO first determined whether or not there was a "decisive" (or clear-cut) resolution of combat and assigned victory on this basis if there was such clear-cut resolution. If combat was judged not to be clear-cut by inspection. then mission accomplishment scores were employed to determine success or failure. The resolution of combat (RESO) recorded in Table 7 of the data base is a schematic representation of what happened to both sides as a result of the battle. It does not necessarily represent whether or not the resolution was decisive (i.e., clear-cut) nor was it HERO's intention for it to do so. Success (WINA) is determined in all engagements, including those with stalemate entered in RESO, by (1) decisive resolution of combat, or (2) mission accomplishment. See also the response to Task 3 in Volume III of this study.

15. Data given for US and Japanese strength in engagement \$520 may not comport with HERO's own definition of total personnel as those exposed to enemy fire. Note that the Okinawa battles suffer from the same problem, as do several of the Arab-Israeli battles.

Response: HERO calculated the strengths for these engagements by adding the reported or estimated strengths of combat, combat support, and service units, if they were judged subject to enemy fire.

Specific Problem Reports

The specific problem reports are divided into two groups. The first group contains problem reports that are addressed by text. The problem reports in the second group are addressed in tabular format. These are presented in order by volume, page, table, engagement, attacker data cell, and defender data cell, as they appear in the original data base.

Specific Problem Reports

Turckheim, \$37: SECA (Vol. II, p.67, Table 7). The value, as entered is "FE," indicating a demonstration. This value is consistent with the narrative, p. 76, para 3.

Hastenbeck, #68: RESOA and RESOD (Vol. II, p. 143, Table 7).
"Both sides withdrew? Misleading or wrong." In fact, both sides did withdraw (see narrative, p.149). However, the French subsequently returned and occupied the battlefield.

Arcola, #186: TERRA (Vol. II, p. 192, Table 2). The HERO terrain code "M" is used to indicate a marsh or swamp. Arcola was fought in an extensive swampy bottom land. Troop movements were confined largely to causeways.

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Pyramids, #198: WX (Vol. II, p. 192, Table 2)
Mount Tabor, #110: WX (Vol. II, p. 192, Table 2)
Palo Alto, $157: WX (Vol. III, p. 68, Table 2)
Resaca de la Palma, #158: WX (Vol. III, p. 68, Table 2)
Buena Vista, #159: WX (Vol. III, p. 68, Table 2)
Ordurman, #234: WX (Vol. III, p. 212, Table 2)
Kut-el-Amara, #392: WX (Vol. IV, p.122, Table 2)
Ctesiphon, #3#3: WX (Vol. IV, p. 122, Table 2)
Alam Halfa, #386: WX (Vol. V, p. 7, Table 2)
El Alamein II, #387: WX (Vol. V, p. 7, Table 2)
Operation "Lightfoot," #388: WX (Vol. V., p. 7 Table 2)
Alamein Bridgehead Expansion, #389: WX (Vol. V. p. 7, Table 2)

Operation "Supercharge," #390: WX (Vol. V, p. 7, Table 2)

El Guettar, #392: WX (Vol. V, p. 7, Table 2)
Rafah, #554: WX (Vol. VI, p. 138, Table 2))
Bir Lahfan, $555: WX (Vol. VI, p. 138, Table 2)
Abu Ageila-Um Katef, $556: WX (Vol. VI, p. 138, Table 2)
El_Arish, #557: WX (Vol. VI, p. 138, Table 2)
Jebel Libni, $558: WX (Vol. VI, p. 138, Table 2)
Gaza Strip, #559: WX (Vol. VI, p. 139, Table 2)
Bir Hassna-Bir Thamada, #560: WX (Vol. VI, p. 139, Table 2)
Mitla Pass, #561: WX (Vol. VI, p. 139, Table 2)
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Bir Hamma-Bir Gifgafa, #562: WX (Vol. VI, p. 139, Table 2)

Nakhl, #563: WX (Vol. VI, p. 139, Table 2)

Bir Gifgafa, #564: WX (Vol. VI, p. 139, Table 2)

Suez Canal Assault-North, #569: WX (Vol VI, p. 181, Table 2)

Suez Canal Assault-South, #570: WX (Vol. VI, p. 181, Table 2)

Second Army Buildup, #571: WX (Vol. VI, p. 181, Table 2)

Third Army Buildup, #572: WX (Vol. VI, p. 181, Table 2)

Kantara-Firdan, #573 WX (Vol. VI, p. 181, Table 2)

Egyptian Offensive-North, #574: WX (Vol. VI, p. 181, Table 2)

Egyptian Offensive-South, #575: WX (Vol. VI, p. 181, Table 2)

Deversoir (Chinese Farm II), #576: WX (Vol. VI, p. 181, Table 2)

Deversoir (Chinese Farm II), #577: WX (Vol. VI, p. 181, Table 2)

Deversoir West, #578: WX (Vol. VI, p. 181, Table 2)

Ismailia, #579: WX (Vol. VI, p. 182, Table 2)

Jebel Geneifa, #580: WX (Vol. VI, p. 182, Table 2)

Shallufa II, #581: WX (Vol. VI, p. 182, Table 2)

Shallufa II, #583: WX (Vol. VI, p. 182, Table 2)

Shallufa II, #583: WX (Vol. VI, p. 182, Table 2)

Shallufa II, #583: WX (Vol. VI, p. 182, Table 2)

Suez, #584: WX (Vol. VI, p. 182, Table 2)

All of the engagements in the list above, beginning with The Pyramids, #198, had specific problem reports regarding the entries in the Season descriptor cell of Table 2. In each case the Season descriptor entered incorporated the "D" (=desert) suffix.

This is apparently directly related to the problem described in General Problem Report #10, that is, the inclusion of "desert," a topographical/climate type descriptor, within the compound Season descriptor. For the answer to this objection, the reader is referred to the reply to General Problem Report #10.

Custozza II, \$178: WOF (Vol. III, p. 92, Table 1). This entry was left blank in the original data base. We have been unable to determine WOF for this engagement. A "?" should have been entered.

Shiloh, \$178: SURPA (Vol. III, p. 185, Table 2). "I would have thought that at Shiloh surprise was complete I fear that HERO rates surprise by its subjectively judged effects, rather than by surprise per se." The presence or absence of surprise in a combat situation can be determined from the record. That would be surprise per se. Subjective judgement must be applied to determine the degree of surprise. In the case of Shiloh, though, complete surprise is indicated.

Corinth, \$192: The entries in the following data cells of the original data base are reversed for the attacker and defender for the Battle of Corinth. Entries given for the attacker actually pertain to the defender and vice versa. The data cells are NAMA, NAMD, COA, COD, XØ, YØ, CX, CY, WINA, and Success. Revisions have also been made for ACHA, ACHD, RESOA, and RESOD. These changes are shown in the tables addressing the Consistency Problem Reports in Volume II of this study. New data has been developed for WOF. This data is shown in the tables addressing Task 5, Clarification of the Width of Front Data, in Volume IV of this study. Entries in all other data cells for this engagement do not change.

Guadalajara-Brihuega, \$255: SECA, SECD (Vol. IV, p. 37, Table 7). "The values given don't seem to agree with the narrative description." The narrative description correctly describes the frontal attacks along the-axes of the Strada di Francia and the Brihuega-Torija road that resulted in penetrations by the

Italians, and recorded under PRIA and PRID. These frontal attacks were made by the Italian right and left, respectively. The Republican counterattack, which was made principally by the Republican right, was also a frontal attack. The envelopments recorded under SECA and SECD were secondary attacks, meant to be initiated after the main attacks had effected penetrations. Only SECD, the Republican envelopment of the Italian strongpoint at Brihuega, was successful.

Fourth Isonzo, \$299: WX (Vol. IV, p. 122, Table 2). HERO used the value "FT/WT" in its Season descriptor; CAA used "FT". This battle was fought predominantly in the fall, but extended into winter. If it is desired to use one season descriptor, then "FT" is the more appropriate.

First Somme, \$364: WX (Vol. IV, p. 137, Table 2). HERO used "ST/FT" in its Season descriptor; CAA used "ST". This battle too, was fought in two seasons. If it is desired to use one value, then "ST" is the more appropriate, since the greater part of the battle was fought in the summer.

First_Somme, #304: ARTYD (Vol. IV, p. 138, Table 3). The HERO entry was "400+". Researcher's notes indicate that 400 was the number of heavy guns only. The number of light and medium artillery guns is not known. The entry is misleading and should be replaced with a "?".

Ypres III, #319: WX (Vol. IV, p. 149, Table 2). The HERO entry is "ST/FT"; CAA used "ST". This was another battle that extended from one season into another. If it is desired to use one value for the season descriptor, then "FT" is the more appropriate.

Tenth Isonzo, #322: WX (Vol. IV, p. 149, Table 2). The HERO value is "SpT/ST" for a battle fought predominantly in the spring; CAA used "Spt" ["\$T", CAA code]. "SpT" would be the more appropriate descriptor if it is desired to use one value.

Eleventh Isonzo, #323: WX (Vol. IV, p. 149, Table 2). HERO used a "ST/FT" Season descriptor; CAA used "ST". This battle was fought over two seasons, 14 days in summer, and 15 days in fall. If it is desired to use just one value, then "FT" would be the more appropriate.

Buzancy Ridge, \$361: NAMA (Vol. IV, p. 199, Table 2). The problem is not with NAMA; the NAMA for Berzy le Sec, \$369, and this engagement are correct. Both of the attacking regiments belonged to the same division, the US 1st, which was commanded by General Summerall. In those instances in which researchers could not identify the names of unit commanders they entered the name of the next highest commander. The correct COA for Berzy le Sec, \$360, is Colonel Babcock. The correct COA for Buzancy Ridge, \$361, is Colonel Parker.

Picardy, 1918, Phase I, #362: RESOD (Vol. IV, p. 284, Table 7). HERO entered the value "WDL". HERO believes that a loss rate of 4.4%/day in personnel and 6.7%/day in artillery guns by a force of army group size in not inconsistent with the assignment of "WDL" for RESOD. The entered value should stand.

Remilly-Aillicourt, #382: COD (Vol. IV, p. 211, Table 1). It is indeed inappropriate to list a lieutenant general as the commander of a battalion, though he may have been the next highest identifiable commander. A "?" should be inserted for COD.

Engagements \$386-\$393 (all North African battles): TERRA (Vol. V, p. 7, Table 2). HERO entered "FB", "RB", "RgB", or combinations of the preceding, and, for Sedjenane-Bizerte, \$391, entered "RgM" as the value of TERRA; CAA would use the "D" (=desert) suffix instead of the "B" (=bare) or "M" (=mixed) suffixes for these TERRA values. HERO believes that the use of the "B" or "M" suffixes is appropriate for TERRA in these cases, since the tertain, although superficially exhibiting "desert" characteristics, is better described as bare or mixed. For example, a terrain analysis of the El Alamein area, where engagements \$386-\$390 were fought, would show a narrow coastal sector of dune overlaying limestone rock; south of this is a region of rock with a patchy, superficial covering of drift sand; further south, on the verge of the Qattara Depression, is the only region of true desert.

El Alamein II, \$387: RESOD (Vol. V, p. 11, Table 7). HERO entered the value of "WDL," indicating that the defender withdrew with serious loss. The value entered should stand. The materiel losses of the German-Italian Panzer Army in this battle were very serious, with 591 of the 593 tanks of the army lost in 13 days of combat. The loss of artillery guns was also serious, but the exact number is not known.

Engagements #521-#548: (all engagements on Okinawa): LOCN (Vol, VI, pp. 82, 83, 111, 112, Table 1). No entry for LOCN was given under NAME. Insert "Okinawa" at LOCN for each engagement.

Engagments #523, #524, etc.(Okinawa): NAMD (Vol. VI, pp. 82, 83, 111, 112, Table 1). "Japanese unit designations seem inconsistent with the rank of their commanders and with the sizes of their forces as listed in Table 3." In these cases the units named were the largest identifiable elements of the Japanese forces involved in the engagement. The names of the immediate commanders in the various engagements may not have been ascertainable from the record. In instances where this was the case researchers entered the name of the next highest identifiable commander, although that practice was not explained in the original HERO data base report.

Adabiya, #582 (Vol. VI, pp. 180, 182, 184, 186, 188, 190, Tables 1-7). "The Adabiya battle data are not listed in the same battle sequence as established on p. 180, Table 1, of Vol. VI." In

terms of sequence and precedence in time the Adabiya engagement should follow Shallufa I. Its position on each of the seven tables is incorrect. However, all data following the row heading "Adabiya" in each of the tables is data for the Adabiya engagement.

Specific Problem Reports

Dessau Bridge, #4 Vol. II, p. 16, Table 6

Data Cell	Change From:	Change To:
FORTSA	N/x	(blank)/x

Breitenfeld II, #12 Vol. II, p. 13, Table 3

1		
CARTYA	_	0
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Tuttlingen, #14

Vol. II, p. 13, Table 3

CARTYA	(blank)	0.

Preston, #26 *

Vol. II, p. 43, Table 3

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Senef, #35

Vol. II, p. 67, Table 7

RESOA	P, MD	P, S, WD	
		i	

Senef, #35

Vol. II, p. 67, Table 7

	1	
RESOD	WD	S, WD

Enzheim, #36 Vol. II, p. 67, Table 7 Data Cell Change From: Change To: P, WD P, R, WD RESOA Enzheim, #36 Vol. II, p. 67, Table 7 P, WD RESCO P, R, WD Sedgemoor, \$39 Vol. II, p. 84, Table 3 0. CARTYD Killiecrankie, #40 * Vol. II, p. 84, Table 3 CAVA 50 Killiecrankie, #40 * Vol. II, p. 84, Table 3

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Killiecrankie, #40 * Vol. II, p. 84, Table 3

CARTYD	(blank)	3
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Walcourt, #41

Data Cell		
	Change From:	Change To:
CAVA	(blank)	?
lcourt, #41 1. II, p. 84,	Table 3	
CAVD	(blank)	?
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lcourt, #41 * 1. II, p. 84,	Table 3	
ARTYD	(blank)	28
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lcourt, #41 1. II, p. 84,	Table 3	
lcourt, #41 1. II, p. 84,	Table 3	0
d. II, p. 84,	Table 3	0
CARTYD curus, #42 *		0

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CAVD

11,578

Fleurus, #42* Vol. II, p. 84, Table 3 Change To: Data Cell Change From: 70 (blank) ARTYA Fleurus, #42* Vol. II, p. 84, Table 3 (blank) 60 ARTYD Flourus, #42 Vol. II, p. 84, Table 3 0 . CARTYA Aughrim, #44* Vol. II, p. 84, Table 3 6,300 (blank) CAVA Aughrim, #44 * Vol. II, p. 84, Table 3 4,000 CAVD (blank) Aughrim, #44 Vol. II, p. 84, Table 3

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ARTYA

Aughrim, #44

Vol.	11,	p.	84,	Table	3
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Data Cell	Change From:	Change To:
CARTYA	-	0

Neerwinden (Landen), \$46

Vol. II, p. 84, Table 3

CARTYA	_	0

Marsaglia, #47

Vol. II, p. 84, Table 3

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CARTYA	-	0.	

Poltava, #49

Vol. II, p. 85, Table 3

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CARTYD	_	0	

Blenheim, #50

Vol. II, p. 85, Table 3

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Ramillies, #51

Vol. II, p. 85, Table 3

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CARTYA	_	0

Oudenarde, #52 Vol. II, p. 85, Table 3 Data Cell Change From: Change To: 0 CARTYA Malplaquet, #53 Vol. II, p. 85, Table 3 0 CARTYA Oudenarde, #52 Vol. II, p. 88, Table 4 C. TECHA X Oudenarde, #52 Vol. II, p. 94, Table 7 KD RESOD HOL Lobositz, #64 Vol. II, p. 137, Table 3 0 CARTYA Kolin, #67

0

Vol. II, p. 137, Table 3

CARTYD

Rossbach, #69 Vol. II, p. 137, Table 3

Data Cell	Change From:	Change To:
CARTYD	-	0
Leuthen, #70		
Vol. II, p. 137,	Table 3	
CARTYA		0
Minden, #75*		
Vol. II, p. 138,	Table 3	
CAVA	-	7,000
Minden, #75* Vol. II, p. 138,	Table 3	
CAVD		9,600

Plains of Abraham (Quabec), #77 Vol. II, p. 138, Table 3

CAVA	-	0

Plains of Abraham (Quebec), #77
Vol. II. p. 138. Table 3

VOI. 11, p. 136, Table 3			
CAVD	-	0	
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Quebec, \$83

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Butaw Springs, #95* Vol. II, p. 168, Tal	ole 3	
Data Cell	Change From:	Change To:
CAVA	-	412
Butaw Springs, #95* Vol. II, p. 168, Tal	ole 3	
CAVD	•	50
Bunker Hill, #82 Vol. II, p. 169, Tal		so (f). 2 1.
LOGSA	(blank)	N/(blank)
Princeton, #86 Vol. II, p. 173, Tal	ole 7	
RESOD	WOL	WD
Jemappes, #97 Vol. II, p. 199, Tal	ole 7	
PRIA	F, E	F, E(LF)
Jemappes, #97 Vol. II, p. 199, Tel		P (DP)
SECA	E	E (RF)

Mount Tabor, #110 Vol. II, p. 200, Table 7 Data Cell Change From: Change To: RESOA WIL WD Eylau, #120 Vol. III, p. 11, Table 5 WINA (blank) x/x Corunna, #123 Vol. III, p. 13, Table 7 PRIA A \mathbf{F}_{i} Vittoria, #133 Vol. III, p. 19, Table 7 RESCO WDL W Bombona, \$152 Vol. III, p. 63, Table 3 0 CARTYA Pichincha, #153 Vol. III, p. 63, Table 3 CARTYD 0

Junin, #154 Vol. III, p. 63, Table 3

Data Cell	Change From:	Change To:	
CARTYA	-	0	i
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Junin, #154

Vol. III, p. 63, Table 3

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Resaca de la Palma, #158 Vol. III, p. 72, Table 7

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	RESCO	WDL	WD	

Custozza II, #170

Vol. III, p. 92, Table 1

				
WO		(blank)	?	

Inkerman, #166

Vol. III, p. 94, Table 3

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CX	1,5187	15,187
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Shiloh, #178

Vol. III, p. 105, Table 2

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SURPA	Substantial -A	Complete-A
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Mill Springs, \$174 Vol. III, p. 109, Table 7 Data Cell . Change To: Change From: RESOA R, WOL R, WD Mechanicsville, #184 Vol. III, p. 114, Table 6 (blank) /N N/(blank) LEADAA Chattanooga, #201 Vol. III, p. 127, Table 7 PRIA F, EE E, E(RF) Chattanooga, #201 Vol. III, p. 127, Table 7 E(LF), FE SECA F, P At.lanta, #208

W1. 111, p.	130, Table 3	
1	1	1
CARTYD	; 113	; 13

Peachtree Creek, #207 Vol. III, p. 131, Table 4

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LEADA	C/x	C/(blank)

Spotsylvania, #203 Vol. III, p. 133, Table 7

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RESOA	s,	P, R, S	
i	<u> </u>		Ì

Cedar Creek, #212

Vol. III	, p.	133,	Table	7
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Data Cell	Change From:	Change To:
RESOA	R, WDL	R, WD

Franklin, #213

Vol. III, p. 134, Table 1

	<u>-</u>		
NAMA	i	US Army of Tennessee	CS Army of Tennessee
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Five Forks, #217*

Vol. III, p. 136, Table 3

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i	CY	5,200+	6,000
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Gravelotte-St. Privat, \$224 Vol. III, p. 200, Table 7

RESOD	WD, S	WD
1	1	

Omdurmen, #234

Vol. III, p. 213, Table 3

CARTYA	(blank)	0
CARIYA	(DLANK)	U

Omdurman, #234

Vol. III, p. 213, Table 3

CARTYD	(blank)	0	· ·

Spion Kop, #239

Vol.	III,	p.	220,	Table 4

Data Cell	Change From:	Change To:
LEADA	D	0

Namonhan: Opening Engagement, #259

Vol. IV, p. 43, Table 3

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CARTYD	-	?

Sucmussalmi, #261

Vol. IV, p. 46, Table 7

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PRIA	P, EE	EB

Suomussalmi, #261

Vol. IV, p. 46, Table 7

	!	!
SECA	P, EE	P

Le Cateau, #267*

Vol. IV, p. 58, Table 3

CX	(blank)	8,970
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Quise, \$268

Vol. IV, p. 61, Table 7

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RESOD	PD	P, R, WD
1		

Data Cell	Change From:	Change To:
TERRA 1, 2	RM/RM	PM/FM
clice-Tarnow (O	pening Phase Only), #295 Table 1	
NWE	Golice-Tarnow	Gorlice-Tarnow
. IV, p. 123,	Landing, #300* Table 3 (blank)	3,900
rst Dardanelles L. IV, p. 123,	Table 3	3,900
CY 123,	Table 3	3,900
l. IV, p. 123,	Table 3 (blank)	3,900
CY 23, 123, 123, 123, 124	Table 3 (blank)	3,900 750
CY 123, 1301*	(blank) Table 3 (blank)	
CY /la Bay, #301* L. IV, p. 123,	(blank) Table 3 (blank)	

P, S

RESOA

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Gaza III, #328 Vol. IV, p. 175, Table 1

Vol. IV, p. 175,	Table 1	
Data Cell	Change From:	Change To:
NNO	The	Tk
Gaza II, #327 Vol. IV, p. 177,	Table 3	
MBTA	(blank)	?
Gaza II, #327 Vol. IV, p. 177,	Table 3	
METO	(blank)	7.
Gaza III, #328 Vol. IV, p. 177,	Table 3	
LTA		?
Gaza III, #328 Vol. IV, p. 177,	Table 3	
IND		?
Gaza III, #328 Vol. IV, p. 177,	Table 3	
META	(blank)	?

Gaza	III	, #:	328	
12-7	777	-	177	Table

Data Cell	Change From:	Change To:
METO	(blank)	?

Second Somme, Phase I (Somme-Peronne), #330 Vol. IV, p. 177, Table 3

	MBTA		(blank)	?	
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Second Samme, Phase I (Samme-Peronne), \$330 Vol. IV, p. 177, Table 3

MBTD	(blank)	7.

Second Somme, Phase II (Somme-Montdidier), #331 Vol. IV, p. 177, Table 3

MBTA		(blank)	?	
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Second Somme, Phase II (Somme-Montdidier), #331 Vol. IV, p. 177, Table 3

MBTD (blank) ?

Crossing of the Tigris, #325 Vol. IV, p. 180, Table 7

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PRIA	P.	RivC

Gaza III, #328 Vol. IV, p. 180, Table 7

Change From:	Change To:					
WOL	WD					
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Hill 142, #337 Vol. IV, p. 182, Table 2						
RM/RgM/RgW	RM/RgW					
Yvonne and Odette Positions, #333 Vol. IV, p. 183, Table 3						
	0.					
Yvonne and Odette Positions, #333 Vol. IV, p. 183, Table 3						
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Yvonne and Odette Positions, #333 Vol. IV, p. 183, Table 3						
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Yvonne and Odette Positions, #333 Vol. IV, p. 183, Table 3						
	0					
	Table 2 RM/RgM/RgM Positions, #333 Table 3 Positions, #333 Table 3 Positions, #333 Table 3					

Chemin des Dames, #334 Vol. IV, p. 183, Table 3

Change From:	Change To:
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#334 Pable 3	
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	#334 rable 3

Hill 142, #337

22-7	-	_	100	Table	
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Data Cell	Change From:	Change To:	
DEEPA	(blank)/N	N/(blank)	
192, \$340 IV, p. 186, T	able 7		
ESOA	R, WDL	P, R, WD	
K1	Nt Atk	DOT	
WK1 , #347	Nt Atk	j Dor	
	able 3		
1v, p. 169, T		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	
		?	
IV, p. 189, T		?	

MBTA

?

ol. IV, p. 189, Ta	ble 3	
Data Cell	Change From:	Change To:
METO		?
a Roche Wood East, ol. IV, p. 189, Ta		
LTA		?
Roche Wood East, 1. IV, p. 189, Ta		•
TUD	-	7.
a Roche Wood East, ol. IV, p. 189, Ta		
MBTA		?
a Roche Wood East, ol. IV, p. 189, Ta	#348 ble 3	
METD		?
Roche Wood West, ol. IV, p. 189, Ta		
LTA	wite	7

La Roche Wood West, #349 Vol. IV, p. 189, Table 3

Data Cell	Change From:	Change To:	
LID		?	
La Roche Wood West Jol. IV, p. 189, T			
META		?	
La Roche Wood West Vol. IV, p. 189, T	, #349 mble 3		
MBTD		7.	
Noyon-Montdidier, Vol. IV, p. 189, T		7	
Noyon-Montdidier, Vol. IV, p. 189, T	#350 able 3	•	
LATO		?	
Noyon-Montdidier,	4350 able 3	?	

Data Cell	Change From:	Change To:	
ЭТ О	(blank)		
n-Montdidier, IV, p. 189, T			
LXID	(blank)	?	
	Hunting Lodge, #342	** **********************************	
IV, p. 192, T		WD, S	
IV, p. 192, To seches II, #34 IV, p. 192, To seches II, #34	WDL 3 able 7		
IV, p. 192, To seches II, #34 IV, p. 192, To seches II, #34	NDL	ND, S	
ESCA ESCA	NDL R, WD, S		

North Wood II, #344 Vol. IV, p. 192, Table 7

Data Cell	Change From:	Change To:	
RESOA	R, NCL, S	R, ND	

North Wood II, #344 Vol. IV, p. 192, Table 7

1		
RESCD	s	(blank)

North Wood III, #345 Vol. IV, p. 192, Table 7

RESOA	R, WDL, S	R, ND
i		

North Wood III, #345 Vol. IV, p. 192, Table 7

RESCO		8	(blank)
i	i		

Vaux, #347 Vol. IV, p. 192, Table 7

RESOD	R, WCL	R, WD
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La Roche Wood East, #348 Vol. IV, p. 192, Table 7

1		
RESOD	R, WDL	R, WD
·	1	i

La Roche Wood West, #349 Vol. IV, p. 192, Table 7

Data Cell	Change From:	Change To:
RESOD	R, WDL	R, WD

Aisne-Marme II, #359 Vol. IV, p. 194, Table 2

TERRA 1	RIM	IM

Champagne-Marne, #351 Vol. IV, p. 195, Table 3

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CTANKO	(blank)	7.	İ

Aisne-Marme II, #359 Vol. IV, p. 195, Table 3

101. 11/ p. 20/ 122 0		
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IND	_	7

Aisne-Marne II, #359 Vol. IV, p. 195, Table 3

METD	 ?

Cravancon Ferme-Chaudun, #357 Vol. IV, p. 197, Table 6

	!	
FORTSA'	(blank)/N	(blank)/x
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Aisne-Marne	I, \$	352	
Vol. IV, p.	198,	Table	7

Data Cell	Change From:	Change To:
RESCO	WDL	WD

Picardy, 1918, Phase I, #362 Vol. IV, p. 199, Table 1

	Gr Second & Eight-	Ger Second & Eight-
NAMD	eenth Armies	eenth Armies

Lahayville-Bois de Lamarche, #365

Vol. IV, p. 199, Table 1

WOP	1.2-2.0	1.2

St. Mihiel, #364 Vol. IV, p. 200, Table 2

VOK1		WOT	WLT
1	İ		1

Berzy le Sec, #360 Vol. IV, p. 201, Table 3

		_!
LTA	 ?	i
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Berzy le Sec, #360 Vol. IV, p. 201, Table 3

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IND	_	?

Berry le Sec, #360 Vol. IV, p. 201, Table 3

ata Cell	Change From:	Change To:
BTA	_	?
y le Sec, #360 IV, p. 201, T	able 3	
STD .		?
cy Ridge, #36 IV, p. 201, T	able 3	
ra.	_	?.
cy Ridge, #36	1 able 3	? .
cy Ridge, #36 IV, p. 201, T	able 3	?
TA ncy Ridge, #36 IV, p. 201, T ncy Ridge, #36 IV, p. 201, T	able 3	

Picardy, 1918, Phase I, #362 Vol. IV, p. 201, Table 3

Data Cell	Change From:	Change To:
LITO		?
icardy, 1918, Pt ol. IV, p. 201,	nase I, #362 Table 3	
METD		?
icardy, 1918, Prol. IV, p. 201,	nase II, \$363 Table 3	
LVA	-	7.
icardy, 1918, Pf	nase II, #363	
	Table 3	2
LITO	nase II, \$363	?
icardy, 1918, Prol. IV, p. 201,	nase II, \$363	?
LOTO Loardy, 1918, Prod. IV, p. 201,		

Picardy, 1918, Phase II, #363 Vol. IV, p. 201, Table 3

+363	?
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Megiddo, #385

Vol. IV, p. 286, Table 3

Change From:	Change To:
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	Change From:

Megiddo, #385

Vol. IV, p. 286, Table 3

1					
LITO	İ	•••	İ	?	
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Megiddo, #385

Vol. IV, p. 286, Table 3

META	1	 1	?	
	- 1	1		

Magiddo, #385

Vol. IV, p. 286, Table 3

METD	 7	

Alamein Bridgehead Expansion, #389 Vol. V, p. 7, Table 2

TERRA 1, 2	RB/RB	P9/RB

Dragoni, \$409

Vol. V, p. 37, Table 3

1		
METD	(blank)	55
·		ii

Formia, #438

Vol.	V.	p.	86,	Table	3
		-			

Change From:	Change To:	
•	0	
	Change From:	

Cisterna, #445

Vol. V, p. 90, Table 1

WOP	7.75	7.8	

Tarto-Tiber, #456

Vol. V, p. 100, Table 6

DEEPA	(blank)/N	N/(blank)	
12 (1)			

Mortain, #461 Vol. V, p. 130, Table 6

FORTSA	(blank)/N	N/(blank)

Mortain, #461 Vol. V, p. 130, Table 6

DEEPA	(blank)/N	N/(blank)
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Chartres, \$462

Vol. V, p. 130, Table 6

FORTSA	(blank)/N	N/(blank)

Chartres, #462 Vol. V, p. 130, Table 6

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Data Cell	Change From:	Change To:
DEEPA	(blank)/N	N/(blark)
un, #4 63 . V, p. 130, T	Table 6	
DEROPA	(blank) /N	N/(blank)
River, \$464		
	(blank)/N	N/(blank)
ncourt, \$467	(blank)/N	N/(blank)
DEEPA	(blank)/N Pable 6	
acourt, #467 . V, p. 130, 1	(blank)/N	N/(blank)
DEEPA	(blank)/N Cable 6 (blank)/N	

Netz		166			
Vol.	V,	p.	131,	Table	7

Data Cell	Change From:	Change To:
SECA	(missing)	-

Metz, \$466 Vol. V, p. 131, Table 7

Success	(missing)	(blank)/x

Metz, \$466 Vol V, p. 131, Table 7

RESOA	(missing)	R, S
		1

Metz, \$466 Vol. V, p. 131, Table 7

PRID	(missing)	D
1		·

Mets, \$466 Vol. V, p. 131, Table 7

SECO	(missing)	 į
		i

Metz, \$466 Vol. V, p. 131, Table 7

RESOD	(missing)	5
	<u> </u>	

Seille-Nied, #470

Vol.	V,	p.	134,	Table	3
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Data Cell	Change From:	Change To:
LID	(blank)	0

Seille-Nied, #470*

Vol. V, p. 134, Table 3

MBTD	(blank)	71
	and the second s	

Morhange, \$472

Vol. V, p. 136, Table 6

,				·
FORTSA	(blank)/N	İ	N/(blank)	
		i		i

Morhange, \$472 Vol. V, p. 136, Table 6

DEEPA	(blank)/N	N/(blank)
	l	l

Morhange-Faulquemont, \$473

Vol. V, p. 136, Table 6

DEEPA	(blank)/N	N/(blank)

Baerendorf I, \$476

Vol. V, p. 136, Table 6

FORTSA	(blank)/N	N/(blank)

Beerendorf I, \$476 Vol. V, p. 136, Table 6

Data Cell	Change From:	Change To:
DEEPA	(blank)/N	N/(blank)
rendorf II, #477 . V, p. 136, Tab		
FORTSA	(blank)/N	N/(blank)
rendorf II, #477 . V, p. 136, Tab	le 6	
DEEPA	(blank)/N	N/(blank)
. V, p. 136, Tab	78 le 6 (blank)/N	N/(blank)
EEPA stel-Faerbersvil	le 6 (blank)/N ler, #479	N/(blank)
EEPA stel-Faerbersvil . V, p. 136, Tab	le 6 (blank)/N ler, #479	N/(blank)
rbach-Durstel, #4 1. V, p. 136, Tab DEEPA rstel-Faerbersvil 1. V, p. 136, Tab DEEPA arre-Union, #480 21. V, p. 136, Tab	le 6 (blank)/N ler, \$479 le 6 (blank)/N	

Morhange-Faulquement, #473 Vol. V, p. 137, Table 7

Data Cell	Change From:	Change To:
PRID	D/O, R	D/O, F

Baerendorf II, #477 Vol. V, p. 137, Table 7

PRID	(blank)	D

Baernedorf II, #477 Vol. V, p. 137, Table 7

RESOD	(blank)	S

Singling-Bining, #482 Vol. V, p. 142, Table 6

DEEPA	(blank)/N	N/(blank)

Sauer River, #483 Vol. V, p. 148, Table 6

FORTSA	(blank)/N	N/(blank)
1		

Sauer River, #483 Vol. V, p. 148, Table 6

		<u> </u>
DEEPA	(blank)/N	N/(blank)
		i

St. Vith, #484 Vol. V, p. 148, Table 6

Data Cell	Change From:	Change To:
FORTSA	(blank)/N	N/(blank)
FORTSA	(blank)/N	N/(blank)

St. Vith, #484 Vol. V, p. 148, Table 6

DEEPA	(blank)/N	N/(blank)

Bastogne, #485 Vol. V, p. 148, Table 6

FORTSA	(blank)/N	N/(blank)

Bastogne, #485 Vol. V, p. 148, Table 6

1			
1	DEEPA	(blank)/N	N/(blank)
1			

Jitra, #487 Vol. VI, p. 12, Table 7

		T
RESOD	WCL	WD

Ciechanow, Phase II, #514 Vol. VI, p. 17, Table 1

	1	
NAME	Ciechanow, Phase	Ciechanow, Phase II
·		

Data Cell	Change From:	Change To
LOON	(blank)	Poland
chanow, Phase L. VI, p. 20, T	I, #513 able 2	
TERRA1	R	RB
		RB
TERRAL topol Bridgehea	able 2 R d, #502	RB
TERRAL topol Bridgehea	able 2 R d, #502	RB
TERRAL	able 2 R d, #502	PB 0
kopol Bridguhea 1. VI, p. 22, T	able 2 R d, #502 able 3	

Broch	, P	has	ı,	#506	
Vol.	VI,	p.	22,	Table	3
		164			

Data Cell	Change From:	Change To:	
NETD		0	

Assault Crossing of the Vistula River, Phase I, \$508 Vol. VI, p. 22, Table 3

0 LTA

Assault Crossing of the Vistula River, Phase I, #508

Vol. VI, p. 22, Table 3

META	_	(area	O .	
The second secon				

The Oboyan-Kurak Axis, Phase II, #495 Vol. VI, p. 24, Table 5

	T	
ACHD	(blank)	5

Korsun-Schevchenkovskiy, #501

Vol. VI, p. 25, Table 4

MOMENTA	(blank)	x/(blank)

Nikopol Bridgehead, #502

Vol. VI, p. 25, Table 4

MOMENTA	(blank)	x/(blank)
<u> </u>		

Seeld	M H	pig	hts,	#515	
				Table	4

Data Cell	Change From:	Change To:
INTELA	V	С

Korsun-Schevchenkovskiy, #501 Vol. VI, p. 28, Table 6

RESA	(blank)	0/0

Rurak Counteroffensive (Southern Sector), #498
Vol. VI, p. 30, Table 7

RESOD	VCC.	R,. WD
		ii

Melitopol, #500 Vol. VI, p. 31, Table 7

DESCO	NOL	R, ND

East Prussia, #512

Vol. VI, p. 32, Table 7

RESCO	WDL	R	, ND

Ciechanov, Phase II, #514 Vol. VI, p. 32, Table 7

RESOD	VOL	R, WD

Mutankiang, #516 Vol. VI, p. 32, Table 7 Data Cell Change From: Change To: PRIA R, RIVC RIVC Kochi Ridge-Onaga II, #526 Vol. VI, p. 88, Table 4 (blank) /N N/(blank) MONTA Tomb Hill-Ouki, #523 Vol. VI, p. 90, Table 6 CUALA (blank) x/(blank)

Vol. VI, p. 90, Ta	ble 6	
RESA	(blank)	N/(blank)

Tomb Hill-Ouki, #523 Vol. VI, p. 90, Table 6

Tomb Hill-Ouki, #523

!		
MOBILA	(blank)	x/(blank)

Tomb Hill-Ouki, #523
Vol. VI, p. 90, Table 6

AIRA (blank) x/(blank)

Tomb Hill-Ouki, #523 Vol. VI, p. 90, Table 6

Data Cell	Change From:	Change To:
FPREPA	(blank)	x/(blank)

Tomb Hill-Ouki, 0523 Vol. VI. p. 90, Table 6

3. 0.7 p. 0.7 1. 2.2 0		
NOCA	(blank)	N/(blank)

Tomb Hill-Ouki, #523 Vol. VI, p. 90, Table 6

TERRA	(blank)	(blank)/x

Tomb Hill-Ouki, #523 Vol. VI, p. 90, Table 6

LEADAA	(blank)	N/(blank)
	1 4-1-1-1	

Tomb Hill-Ouki, #523 Vol. VI, p. 90, Table 6

	PLANA	(blank)	N/(blank)
- 1		76	

Tomb Hill-Ouki, #523 Vol. VI, p. 90, Table 6

1		
SURPAA	· (blank)	N/(blank)
	·	

Tomb Hill-Ouki, #523 Vol. VI, p. 90, Table 6

Data Cell	Change From:	Change To:
MANA	(blank)	N/(blank)

Tomb Hill-Ouki, #523 Vol. VI, p. 90, Table 6

LOGSAA	(blank)	N/(blank)

Tomb Hill-Ouki, #523 Vol. VI, p. 90, Table 6

FORTSA	(blank)	(blank)/x

Tomb Hill-Ouki, #523 Vol. VI, p. 90, Table 6

1		
DEEPA	(blank)	(blank)/x
		1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -

Skyline Ridge-Rocky Crags, #524 Vol. VI, p. 92, Table 7

RESOA	(blank)	P

Shuri Envelopment, Phase II, #532 Vol. VI, p. 92, Table 7

-	1	
RESOA	R, W	P, R

Advance to the Shuri Line Outposts, #539 Vol. VI, p. 121, Table 7

Deta Cell	Change From:	Change To:
RESOA	х,	P

Advance to the Shuri Line Outposts. #539 Vol. VI, p. 121, Table 7

<u> </u>		
PRID	D	D/O, P

Advance to the Shuri Line Outposts, #539 Vol. VI, p. 121, Table 7

RESCD	(blank)	R, WDL

Jenin, #549 Vol. VI, p. 136, Table 1

COD	Lt Col El	Khalid	Lt Col El Ki	malidi

Jerusalem, #550 Vol. VI, p. 136, Table 1

	œ	Brig Ata Al.	Brig Ata Ali	
ı				i

Kabatiya, #551

Vol. VI, p. 136, Table 1

coo	Lt Col El Khalidi	Brig Ben Shaker
	! <u></u> !_	

Tilfit-Sababida, #552 Vol. VI, p. 136, Table 1

Data Cell	Change From:	Change To:
000	Lt Col El Rhalidi	Brig Ben Shaker

Kabatiya, #551 Vol. VI, p. 136, Table 1

HOP	(blank)	1.0

Tilfit-Zababida, #552 Vol. VI, p. 136, Table 1

HOP	(blank)	1.0

Nablus, #553 Vol. VI, p. 136, Table 1

WOP	(blank)	3.0

Mitla Pass, #561 Vol. VI, p. 137, Table 1

COA	(blank)	MG Choul

Bir Gifgafa, #564 Vol. VI, p. 137, Table 1

COA	(blank)	?
		i

Mitla Pass, #561 Vol. VI, p. 137, Table 1 Change From: Data Cell Change To: Is Yaffe Div (-) Is Yoffe Div (-) MAD Jerusalem, #550 Vol. VI, p. 146, Table 7 R, WD RESOD R, WCL Rafah, #554 Vol. VI, p. 146, Table 7 WIL R, ND RESOD Bir Lahfan, #555 Vol. VI, p. 146, Table 7 RESOD HOL R, WD Abu Ageila-Um Katef, #556 Vol. VI, p. 146, Table 7 RESCO WIL R, ND Mitla Pass, #561 Vol. VI, p. 147, Table 7

R, WD

R, WDL

RESOA

Mr	Hann	3-8	ir ci	fgafa,	#562
				Table	

Data Cell	Change From:	Change To:	
RESCO	NOL	VD.	

Bir Gifgefa, #564 Vol. VI, p. 147, Table 7

NDE	R, ND
	NOL

Shallufa I, #581

Vol. VI, p. 180, Table 1

1.04		
IONO	Is Aden Div	Is Adan Div (+)

Suez, #584

Vol. VI, p. 180, Table 1

NOMEN.	Is Adan Div	Is Adan Div (+)

Suez Canal Assault-North, #569

Vol. VI, p. 183, Table 3

ARTYA	623	1,223

Suez Canal Assault-South, #570

Vol. VI, p. 183, Table 3

			i
ARTYA	571	971	I
·	فتنفوه والمتابية المتابية والمتابية والمتابية والمتابية والمتابية		ı

Kantara-Firdan, #573 Vol. VI, p. 185, Table 5

Data Cell	Change From:	Change To:
KPDA	(blank)	0.0

Shallufa I, #581

Vol. VI, p. 186, Table 4

(blank)	N/(blank)
	(blank)

Summa Canal Assault-North, \$569 Vol. VI, p. 187, Table 6

ank)/N	N/(blank)
	ank)/N

Sues Canal Assault-South, \$570 Vol. VI, p. 187, Table 6

DEEPA	(blank)/N	N/(blank)

Third Army Buildup, #572 Vol. VI, p. 187, Table 6

				j
	DEEPA	(blank)/N	N/(blank)	
ì				į

Kantara-Firdan, #573 Vol. VI, p. 187, Table 6

	1	
FURTSA	(blank)/N	N/(blank)
·		·

Kantara-Firdan, #573 Vol. VI, p. 187, Table 6

Data Cell	Change From:	Change To:
DEEPA	(blank)/N	N/(blank)

Egyptian Offensive North, \$574

Vol. VI, p. 187, Table 6

FORTSA	(blank)/N	N/(blank)

Egyptian Offensive North, #574 Vol. VI, p. 187, Table 6

DEEPA	(blank)/N	N/(blank)
1		

Egyptian Offensive South, \$575 Vol. VI, p. 187, Table 6

FORTSA	(blank)/N	N/(blank)
1	<u> </u>	<u></u>

Egyptian Offensive South, \$575 Vol. VI, p. 187, Table 6

DEEPA	(blank)/N	N/(blank)

Deversoir (Chinese Farm I), #576 Vol. VI, p. 187, Table 6

DEEPA	(blank)/N	N/(blank)

Deversoir (Chinese Farm II), #577 Vol. VI, p. 187, Table 6 Data Cell Change From: Change To: (blank) /N N/(blank) DESCRIPTION OF THE PROPERTY OF Deversoir West, #578 Vol. VI, p. 187, Table 6 N/(blank) FORTSA (blank) /N Deversoir West, #578 Vol. VI, p. 187, Table 6 N/(blank) (blank) /N DEST! Ismailia, #579 Vol. VI, p. 188, Table 6 N/(blank) DAMP. (blank)/N Jebel Geneifa, #580 Vol. VI, p. 188, Table 6 N/(blank) FORTSA (blank) /N Jebel Geneifa, \$580 Vol. VI, p. 188, Table 6

N/(blank)

(blank) /N

DEEPA

Shallufa I, \$581 Vol. VI, p. 188, Table 6 Data Cell Change To: Change From: N/(blank) (blank)/N FORTSA Shallufa I, \$581 Vol. VI, p. 188, Table 6 N/(blank) (blank) /N DARPA Adabiya, #582 Vol. VI, p. 188, Table 6 N/(blank) (blank) /N FORTSA Adabiya, #582 Vol. VI, p. 188, Table 6 N/(blank) DAADA (blank) /N Shallufa II, \$583 Vol. VI, p. 188, Table 6 N/(blank) (blank)/N FORTSA Shallufa II, \$583 Vol. VI, p. 188, Table 6

N/(blank)

(blank)/N

DESERVA

Suez, #584

Vol. VI, p. 188, Table 6

Data Cell	Change From:	Change To:
DEEPA	(blank)/N	N/(blank)

Egyptian Offensive North, #574 Vol. VI, p. 189, Table 7

RESOA	R, WDL	R, WD	

Egyptian Offensive South, #575

Vol. VI, p. 189, Table 7

RESOA	R, MDL	R, ND

Deversoir (Chinese Farm II), \$577 Vol. VI, p. 189, Table 7

RESOD	MDE	· R, WD
111-5-5-5-5-5		

Ahmadiyah, #586

Vol. VI, p. 191, Table 1

NAMA	Syr 7th Inf Div ()	Syr 7th Inf Div (+)

Mount Hermon II, #600 Vol. VI, p. 192, Table 1

1		1
•	İ	1
COD	(blank)	! 2
1 000	(DTMR)	1
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Mount Hermon III, #601 Vol. VI, p. 192, Table 1

Data Cell	Change From:	Change To:
œ	(blank)	?

Hushniyeh, #591

Vol. VI, p. 197, Table 5

KPDA	1.7+	1.7

Naba, 4598

Vol. VI, p. 200, Table 6

FORTSA	(blank) /N	N/(blank)

Naba, #598

Vol. VI, p. 200, Table 6

DEEPA	(blank)/N	N/(blank)

Tel Paris, #590

Vol. VI, p. 201, Table 7

RESCO	WOL	MD
·	i	

Hushniyeh, #591

Vol. VI, p. 201, Table 7

1	i	
RESOD	WDL	14D
1		

Mount Hermonit, \$592 Vol. VI, p. 201, Table 7 Data Cell Change From: Change To: R, WD R, NDL RESOA

Consistency Problem Reports

Dessau Bridge, #4

Vol. II, p. 14, Table 5

Deta Cell	Change From:	Change To:
ACHD	10	9

The Lech, #7

Vol. II, pp. 14, 18; Tables 5, 7

ACHD	6	3
NOILE		

RESOA	S	В

Alte Veste, #8

Vol. II, p. 14, Table 5

ACHA	6	4	

Wittstock #11

Vol. II, p. 15, Table 5

ACHA	10	9
	121	

Breitenfeld II, #12

Vol. II, p. 15, Table 5

ACHA	10	9	

	Change From:	Change To
ACHD		3
croi, #13 1. II, p. 15,	Table 5	
ACHA	10	8
ACHD	5	3
L. II, p. 15,	Table 5	9
eiburg, #15 1. II, p. 15,	Table 5	
	Table 5	6
ACHD		6
ACHD	7	4
ACHD nkau, #16 1. II, pp. 15,	7 19; Tables 5, 7	4

Data Cell	Change From:	Change To
RESOA	R, A	P, R, A
RESOD	Pa	B, Ps
gentheim, #17 . II, p. 15, 1	Table 5	
ACHA	10	9
. 11, pp. 15,	19; Tables 5, 7	
ACHD	19; Tables 5, 7	6
ACHD	7	6
ACHD		
ACHD	7	
SECA	7 E(RF)	

Data Cell	Change From:	Change To
RESOD	WD	P, WD
ns, #19 1. II, p. 15	, Table 5	
ACHA	10	9
gehill, #20 l. II, p. 46	, Table 7	
ESOD	WD	P, WD
erston Moor,	/	
rston Moor,	#21 4, 46; Tables 5, 7	
erston Moor, ol. II, pp. 4	4, 46; Tables 5, 7	4 F, E(RR)
erston Moor, 01. II, pp. 4 ACHD	4, 46; Tables 5, 7	F, E(RR)

Newbury II, #24

Vol. II, pp. 44, 46; Tables 5, 7

Data Cell	Change From:	Change To
WINA	x/(blank)	(blank)/x
ACHD	5	7
Success	x/(blank)	(blank)/x
eby, #25 . II, pp. 44,	46; Tables 5, 7	
ACHA	6	4
RESOD	Ps	B, Ps
ston, #26 . II, p. 44,	Table 5	
ACHA	10	9

Worcester, #28

Vol. II, pp. 44, 46, Tables 5, 7

ata Cell	Change From:	Change To:
CHA	10	9

_				!
ACHD	i	5	4	į

RESOD	WDL	P,WDL

The Reab, #31

Vol. II, p. 62, Table 5

	T	
ACHD	10	1 9
	1	

Enzheim, #36

Vol. II, pp. 63, 67; Tables 5, 7

-	7	
WINA	x/blank	1 x/x

T		1	_		İ
i	ACHA	1	9	•	i

Data Cell	Change From:	Change To:
CHD	5	6
Success	x/blank	x/x
ESOA	P, WD	P, R, WD
ESOD	P, WD	P, R, WD
bellin, #38 II, pp. 63,	67; Tables 5, 7	
CHA	10	9

B

B, Ps

RESOA

Data Cell	Change From:	Change To:
RESOD	WD	WDL
dgemoor, #39	Table 5	
ACHA	5	2
		T
ACHD	8	7
ACHA	Table 5	8
		•
ACHD	5	2
court, #41	Table 5	
ACHA	5	4
ourus, #42	Table 5	
ACHA	10	9
		1

9
3
3
3
3
· 图文化、每四个人。
8
3
9

Zenta, #48

Vol. II, p. 88, Table 5

Data Cell	Change From:	Change To:	i
ACHA	10	9	

Poltava, #49

Vol. II, p. 88, Table 5

1		,		ı
A	CHA	6		l
1				ı

Blenheim, #50

Vol. II, p. 88, Table 5

ACHA	10	9
	•	

Remillies, #51

Vol. II, p. 88, Table 5

ACHA	10	9	

1		*******	7	
ACHD	İ	4	3	i
	1		 	1

Oudenarde, #52

Vol. II, p. 88, Table 5

ACHA	10	9 1	

Data Cell	Change From:	Change To:
ACHD	4	3
terwardein, #54		
ol. II, p. 89, T	able 5	
ACHA	10	9
ACHD	4	2
ollwitz, #55		
ol. II, pp. 115,	117; Tables 5, 7	
WINA	x/(blank)	(blank)/x
	andre des des des des des des des des des de	
RESOA	R, WD	P, R, WD
notusitz, #56#		
ol. II, p. 117,	Table 7	
PRID	D/0, F	D/O, F, E(LR)

RESOA	R, WD	P, R, WD

Dettingen, #57

Vol. II, pp. 115, 117; Table 5, 7

ol. II, pp. 11	5, 11?; Table 5, 7	
Data Cell	Change From:	Change To:
ACHA	8	6
ACHD	4	3
RESOD	R, WD	P, R, WD
ohenfriedberg, ol. II, p. 115,		
ACHA	10	9
ulloden, #63		
ol. II, p. 128,	Table 5	
ACHA	4 .	3
rague, #65 ol. II, pp. 139), 143; Tables 5, 7	
ACHD	6	4

Data Cell	Change From:	Change To:
PRID	D/0,F	D
	•	
RESOA	B, Ps	R, B, Ps
lin, #67 l. II, pp. 139	, 143; Tables 5, 7	
ACHD	9	8
RESOD	Ps	B, Ps
RESOD #68		B, Ps
stenbeck, #68		B, Ps
stenbeck, #68	Table 5	
stenbeck, #68	Table 5	
stenbeck, #68 L. II, p. 139, ACHA	Table 5	5

14. 14.

e k

Crefeld, #71

Vol. II, pp. 139, 143; Tables 5, 7

Data Cell	Change From:	Change To:
ACHA .	9	8
ACHD	6	5
RESOA	В	P
hkirch, #73 . II, p. 139,	Table 5	
ACHA	10	9
gen, #74	Table 5	
ACHD	(blank)	6
ins of Abraha	n (Quebec), #77 Table 5	
ACHA	5	3

Maxen, #78

Vol. II, p. 140, Table 5

Data Cell	Change From:	Change To:
ACHA	10	8

Bunker Hill, #82

Vol. II, p. 169, Table 5

1				
1	ACHD	- 1	6	1 5 1

Quebec #83

Vol. II, p. 169, Table 5

!				!
i	ACHA	5	4	į
1		İ		i

i				<u>'</u>
į	ACHD	1 8	1 7	l
Ì		!		ŀ

Trenton, #85

Vol. II, p. 169, Table 5

1				
Ì	ACHA	i	10	i 9
Ì		i		i

Freeman's Farm, #87

Vol. II, pp. 169, 173; Tables 5, 7

		1	
x/x	(blank)/x	1	WINA
, x/x	(blank)/x		WINA

Data Cell	Change From:	Change To:
ACHD	7	5
Success	(blank)/x	x/x
RESOA	S, WD	P, S
RESOD	(blank)	R, S
fonmouth Court	House, #90	•
Nol. II, pp. 16	59, 173; Tables 5, 7	
WINA	(blank)/x	x/x
•		
ACHD	7	6

Data Cell	Change From:	Change To:
Success	(blank)/x	x/x
wpens, #92 1. II, pp. 169	, 173; Tables 5, 7	
ACHA	6	2
ACHD	10	9
RESOA	R, A	P, R, A
l_		İ
ilford Courtho		
ACHA	7	6
·		
ACHD	7	5
caw Springs, #	95 , 174; Tables 5, 7	
ACHA	6	4

Data Cell	Change From:	Change To:
ACHD	8	5
PRID	D	D/O, F
RESOA	R/WD	P, R, WD
RESOD		P
almy, #96 ol. II, pp. 195,	199; Tables 5, 7	
ACHA	4	3
ACHD	5	4
•		
RESOA	S, WD	S

Lodi, #102

Vol. II, pp. 195, 199; Tables 5, 7

Data Cell	Change From:	Change To:
ACHA	10	8

PRIA	F, P, RivC	F, RivC
1		

SECA		E(RF)
	1	

Neresheim, #104

Vol. II, pp. 195, 199; Tables 5, 7

WINA	x/x	x/(blank)
ii		

ATK WITH DREW PROM PIEZS

1		i	i	1
1	Success	x/x	x/(blank)	
1				ŀ

Pyramids, #108

Vol. II, pp. 196, 200; Tables 5, 7

1			 	į
	ACHA	10	9	
- 1			A	

Data Cell	Change From:	Change To:
PRIA	D/O	F
PRID	D	D/O, F
SECA	F	
tockach I, #109 ol. II, p. 200;		
RESOA	R, WD	P, R, WD
ovi, #112 ol. II, p. 196;	Table 5	
ACHA	6	7
*		
ACHD	4	3
ena, #118	Table 5	
ACHA	10	9

Eylau, #120

Vol. III, pp. 11, 13; Tables 5, 7

Data Cell	Change From:	Change	To:
WINA	(blank)	x/x	
	·	1	DEPENDEN CAM A
PRID	D/O	D/O,F	
Success	x/blank	x/x	
RESOA	S	P, R, S	3
RESOD	S, WD	P, R, V	ID
Aspern-Essling,	#125		
Vol. III, pp. 1	1, 13; Tables 5, 7		
ACHA	5	7	

Data Cell	Change From:	Change To:
ACHD	4	5
PRID	D	D/0, F
RESOA	S	P, R
RESOD	s S	P, R, WD
alavera, #128	7, 19; Tables 5, 7	İ
WINA	x/x	(blank)/x
		
ACHD	5	6
		······································
PRID	D	D/0, F

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Change From:	Change To:
R, WD	P
Р	R, WD
Table 5	
10	9
Table 5	
10	9
Table 5	
8	7
8	6
, 66; Tables 5, 7	
, oo, lables of	
	P Table 5 10 Table 5 10 Table 5 8

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Data Cell	Change From:	Change To
ACHD	9	8
RESOD	Ps	B, Ps
nin, #154		
1. III, p. 64,	Table 5	
ACHA	10	9
acucho, #155		***************************************
1. III, p. 64,	Table 5	
ACHD	10	9
	·	
1. III, p. 64,	Table 5	
ACHD	10	1
e Alma, #165		
1. III, p. 97,	Table 7	E-
PRID	D	D/O, F
<u> </u>		
RESOD :	WD	R, WD

	Change From:	Change To:
rman, #166	*	
III, pp.	95, 97; Tables 5, 7	
CHD	4	5
	•	
ESOA	R, WD	P, R, WD
t Bull Run	(First Manassas), #171	
III, pp.	107, 109; Tables 5, 7	
CHA	3	4

.CHD	5	6
CHD	5	6
CHD	5	6
CHD	5 D/0	6 D/O, E(RF)
	D/O	

Data Cell	Change From:	Change To:
RESOD		В
son's Creek,	172	
. III, p. 109	Table 7	
PRID	D/0	D/O, F
RESOA	R, WD	P, R, WD
RESOD		P, R
.1 Springs, #17	· 4	
. III, p. 109,		
RESOA	R, WDL	R, WD
RESOD	Ps	B, Ps
t Donelson, #1	.75	
t Donelson, #1	.75 ', 109; Tables 5, 7	

Data Cell	Change From:	Change To:
ACHD	4	7
PRID	D/O	D/O, F
RESOA	P, WD	P, R, WD
a Ridge, #170	6 107, 109; Tables 5, 7	
ACHD	6	7
PRID	D/O	D/O, F
	*	
RESOA	R, WD	P, R, WD
	•	
RESOD	Р	
	`~ ~~~~~~~~~~~~~~~	

Kernstown, #177

Vol. III, pp. 107, 109; Tables 5, 7

, 		}
Data Cell	Change From:	Change To:
ACHA	6	4
***************************************		: F
ACHD	8	7
		•
, *************************************		,
PRID	D/O	D/O, F
RESOA	R	R, WD
RESOD	WD	Р
Seven Pines (Fa	air Oaks), #183	•
Vol. III, p. 11	.3, Table 5	
ACHA	5	4

Mechanicsville, #184

Vol. III, p. 113, Table 5

Data Cell	Change From:	·
ACHA	6	5

Gaines's Mill, #185

Vol. III, pp. 113, 115; Tables 5, 7

l			1	
1	WINA	x/(blank)	(blank)/x	
1		l	11	

ACHD	5	6	
l			

-	***************************************		
į	RESOA	R	P, R
1			

South Mountain, #190

Vol. III, p. 121, Table 5

				ί
ŀ	RESOA	P, Ps	P	l
i				į
			•	ė.

Antietam (Sharpsburg), #191

Vol. III, pp. 119, 121; Tables 5, 7

WINA	x/(blank)	(blank)x	1
			ĺ

!		·	•
PRID	D/O	D/O, F	
I			

Data Cell	Change From:	Change To:
Success	x/(blank)	(blank)/x
RESOA	R, S	P, R, S
RESOD	WD	R, S
inth, #192		
. III, pp. 11	9, 121; Tables 5, 7	
WINA	x/(blank)	(blank)/x
WINA	x/(blank)	(blank)/x
	x/(blank)	(blank)/x
ACHA		
ACHA	7	5
ACHA	7	5

Change From:	Change To:
B, Ps	P, R, WD
WD	T
3	
9, Table 5	
6	5
#194	- ·
10	9
tones River), #195	•
25, 127; Tables 5, 7	
6	5
	-
(blank)/x	x/x
#198*	_ ¹
7, Table 7	
	D/0, F
	B, Ps WD 3 9, Table 5 6 #194 9, Table 5 10 tones River), #195 25, 127; Tables 5, 7 6

Data Cell	Change From:	Change To:
RESOA	P, WD	P, R, WD
RESOD		P
Wilderness	s, #202 133, Table 7	
PRID	D/O R, S, WD	D/O, F
RESOD tsylvania, . III, pp.	R, S, WD #203 131, 133; Tables 5, 7	R, S
RESOD tsylvania,	R, S, WD	

Change From:	Change To:
s, wd	S
05 31, 133; Tables 5, 7	
x/x	(blank)/x
S, WD	S
210	
3, Table 7	
D	D/O, F
D	D/O, F
D S	D/O, F P, R, S
, , , , , , , , , , , , , , , , , , ,	
S	
S Third Winchester), #211	
S Third Winchester), #211 3, Table 7	P, R, S
	05 31, 133; Tables 5, 7 x/x S, WD

Froeschwiller (Woerth), #221

Vol. III, p. 200, Table 7

ACHA

Data Cell	Change From:	Change To:
PRID	D	D/0, F
RESOD	WD	R, WDL
chern, #222		
l. III, pp. 19	8, 200; Tables 5, 7	
ACHA	6	7
· —		
RESOA	P, Ps	R, P, Ps
andhlwana, #23)	•
. III, p. 214	, Table 5	
ACHD	4	3
ındi, #231	•	
. III, p. 214	. Table 5	

3

4

Majuba Hill, #232

Vol. III, p. 214, Table 5

Data Cell	Change From:	Change To:
ACHD	4	3

Tel el-Kebir, #233

Vol. III, p. 214, Table 5

	1		
ACHA	j	10	j 9
i	i		

Adowa, #235

Vol. III, p. 214, Table 5

ACHD	5	2	i
	·	<u> </u>	- :
i —	i	i	i

Modder River, #236

Vol. III, p. 222, Table 7

1					-1
PRIA	1	F	ŀ	F, E(RF)	-
	1				. 1

RESOA	R	P	

	RESOD	WD	R, WD	
i				,

Paardeberg, #240

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Vol. III, pp. 220, 222; Tables 5, 7

Change From:	Change To:
(blank)/x	x/x
7	5
(blank)/x	x/x
R	R, S
	S
•	
able 7	
D/0	 D
	(blank)/x 7 (blank)/x R Cable 7

The Sha-Ho, #245

Vol. IV, p. 14. Table 7

Data Cell	Change From:	Change To:
PRID	D/O	D/0,F
RESOD		P, S
ndepu, #246		
1. IV, pp. 12,	14; Tables 5, 7	
WINA	x/(blank)	(blank)/x
PRID	D/O	D/O,F
kden, #247		*
1. IV, pp. 12,	14; Tables 5, 7	
ACHA	9	7
		1
ACHD	7	4

Data Cell	Change From:	Change To:
PRID	D	D/0,F
RESOD	WD	R, WDL
amanovo, #248 ol. IV, p. 26,	Table 7	
PRID	D/O	D/0,F
PEGOD	LID	l b un
RESOD	WD	R, WD
relip, #250 ol. IV, p. 26,	Table 7	
RESOD	WD	R, WD
onastir, #251 ol. IV, pp. 24,	26; Tables 5, 7	
ACHD	5	2
· ·	-	
RESOD	WDL	R, WDL

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Changkufeng-Shachaofeng, #256

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Vol. IV, pp. 44, 46, Tables 5, 7

71. 14, pp. 44,	, 40, Tables 5, 7	
Data Cell	Change From:	Change To:
ACHA	8	7
*		
ACHD	6	4
PRID	D/0	D/0,F
angkufeng-Hill l. IV, p. 46,		
PRID	D/O	D/0,F
Success	x/x	(blank)/x
RESOD	WD	P, S

Nomonhan: Opening Engagement, #259 Vol. IV, p. 46, Table 7 Change From: Change To: Data Cell D/0,F PRID D/0 S, WD RESOD WD Soviet Counteroffensive, #260 Nomonham: Vol. IV, p. 46, Table 7 D/0,F PRID D/0 R, WDL RESOD WDL Suomussalmi, #261 Vol. IV, p. 46, Table 7 PRID D/0 D Alsace-Lorraine I, #262

RESOD WD, S

e e

Vol. IV, p. 61, Table 7

The Ardennes, #264

Vol. IV, p. 59, Table 5

Data Cell	Change From:	Change To:
ACHA	5	3

Mons, #266

Vol. IV, pp. 59, 61; Tables 5, 7

	1				
ACHD	1	6	1	5	1
i <u></u>	 				

RESOA	l P	P, Ps

The Ourcq I, #270

Vol. IV, pp. 65, 67; Tables 5, 7

			!
ACHD	.7	6	i
			l

1-		7		1
İ	RESOA	i	S	P, S
1		-		

1				
	RESOD	l WD	WD, S	
			1	

The Ourcq II, #271

RESOA

Vol. IV, pp. 65, 67; Tables 5, 7

Data Cell Change From:		Change To:	
WINA	x/(blank)	x/x	
Success	x/(blank)	x/x	
Two Morins,	#273		
l. IV, p. 65,	Table 5		
АСНА	4	5	
e Marshes of S	St. Gond, #274 Table 7		
RESOA	R, WD	P, R, WD	
RESOD		P	
ry le Francoi	is, #275		
IV, p. 67,			

R, WD

P, R, WD

Data Cell	Change From:	Change To:
RESOD		P
he Gap of Revigr		~
RESOA	R, WD	P, R, WD
ne Aisne, #277 ol. IV, p. 67, 1	able 7	
RESOA	R, S	P, R, S
RESOD	s	P, S
talluponen, #278	90; Tables 5, 7	
ACHA	5	3
, -		
ACHD	8	6
·	•	
RESOA	R	R, WD

Data Cell	Change From:	Change To:
RESOD	WD	В
odz, #286#		
	90; Tables 5, 7	
WINA	x/x	x/(blank)
ACHD	7	5
<u> </u>		
RESOA	P, WD	P, WD, S
		r
RESOD	WD	S
he Kolubra, #288		
ol. IV, p. 103,	Table 5	
ACHA	10	9
euve Chapelle, #	290	
ol. IV, p. 113,	Table 7	
PRID	D	D/O, F

Data Cell	Change From:	Change To:
RESOA	R, S	P, R, S
		2-
RESOD	S	P, R, S
siphon, #303		
. IV, pp. 124,	126; Tables 5, 7	
ACHA	3	4
ACHD	5	6
*	•	
RESOA	R, WD	P, R, WD
ago, #313 . IV, p. 145,	Table 5	
ACHA	5	6
ACHD	6	5
i	i	

i p

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r Learne Henry . d. Tenth Isonzo, #322 Vol. IV, p. 151, Table 5 Change To: Change From: Data Cell 5 ACHD Gaza II, #327 Vol. IV, p. 178, Table 5 9 ACHD 10 Gaza III, #328 Vol. IV, pp. 178, 180; Tables 5, 7 8 9 ACHA ACHD 4 5 RESOD WDL WD North Wood I, The Hunting Lodge, #342 Vol. IV, p. 192, Table 7 P, S RESOA P

Data Cell	Change From:	Change To:
RESOD	WDL	WD, S
aux, #347 ol. IV, p. 190,	Table 5	
ACHA	5	7
a Roche Wood Ea		
ACHA	6	7
ACHD	4 st, #349	3
ol. IV, p. 190,		
ACHA	6	7
·		
ACHD	4	3
isne-Marne I, #	352	
ol. IV, pp. 196	, 198; Tables 5, 7	
ACHD	5	4

Data Cell	Pata Cell Change From:			
RESOD	WDL	WD		
ne Mont II, #	372 , 210; Tables 5, 7			
WINA	(blank)/x	x/x		
•				
PRID	D/0	D/O, F		
•				
uccess	(blank)/x	x/x		
·				
RESOA	R, S	P, R, S		
elektrika (m. 1864) elektrika (m. 1864) elektrika (m. 1864)				
RESOD S		P, R, S		
Alamein II, #3	387			
. V, p. 9, Tal	ole 5			
ACHD	6	4		

Chouigui Pass, #391

Vol. V, p. 9, Table 5

Data Cell	Change From:	Change To:
ACHA	5	3

El Guettar, #392

Vol. V, p. 11, Table 7

- 1					į
- {	PRID	}	D/0	D/O, F	ļ
- 1		_			į

- 1		1		
i	RESOA	1	R, WD	P, R S
1				

Amphitheater, #394

Vol. V, p. 25, Table 7

1					
Ì	RESOD	i	 Ì	P, R, S	ĺ
1		1	İ	•	İ

Sele-Calore Corridor, #396

Vol. V, pp. 23, 25; Tables 5, 7

WINA	Ì	x/x	Ì	(blank)/x	1
1					

	PRID	D/0		D	1
l					1

Data Cell	Change From:	Change To:
Success	x/x	(blank)/x
ille-Nied, #470	137; Tables 5, 7	
АСНА	8	7
PRID	D/0	D
RESOA	P, R	Р
	•	
RESOD	WD	R, WD
ret de Chateau- l. V, pp. 135,	-Salins, #471 137; Tables 5, 7	
ACHA	5	6
		,
RESOA	P, S	P

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RESOD (blank) re-St. Avold, #475 . V, pp. 135, 137; Tables 5, 7 ACHA 5 PRID D/O rendorf II, #477 . V, p. 135, Table 5 ACMA 5	P, R, WD 7 D/O, F
PRID D/O rendorf II, #477 V, p. 135, Table 5	
PRID D/O Pendorf II, #477 V, p. 135, Table 5	
rendorf II, #477 V, p. 135, Table 5	D/O, F
endorf II, #477 V, p. 135, Table 5 CUA 5	D/O, F
V, p. 135, Table 5	
CUA 5	
ogne. #485	6
V, pp. 147, 149; Tables 5, 7	
INA x/x	(blank)/x
CHD 5	7
RID D/O	D/O, F

Data Cell	Change From:	Change To:
Success	x/x	(blank)/x
RESOA	P	P, R, S
RESOD	WDL	P, R, S
	orodishche Offensive, #49	91
ol. VI, pp. 24,	30; Tables 5, 7	
ACHA	5	6
ACHD	6	5
PRID	D/0	D/O, F
•		
RESOD	WD	R, WD

Kursk Counteroffensive (Southern Sector), #498 Vol. VI, pp. 24, 30; Tables 5, 7 6 5 ACHD D/0, F D/0 PRID R, WD RESOD WDL Melitopol, #500 Vol. VI, p. 31, Table 7 R, WD **RESOD** WDL Korsun-Schevchenkovskiy, #501 Vol. VI, p. 31, Table 7 D/0, F PRID D/0 RESOD R, WDL A Brody, Phase I, #506 Vol. VI, pp. 25, 31; Tables 5, 7 6 7 ACHA

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Change To:
D/O, F
R, WDL
·
7
D/0, F
•
R, WD
r, Phase I, #508
5
i
R, P

Data Cell	Change From:	Change To:
RESOD	WD	R, WD
	ration, Pulawy, Phase I	I, #509
ACHA	7	5
ACHD	4	6
RESOA	R	R, S
RESOD	WD	S
sy-Kishinev, #	510	
. VI, pp. 26,	32; Tables 5, 7	
ACHA	10	9
PRID	D/O	D/O, F
i de la companya de la companya de la companya de la companya de la companya de la companya de la companya de		i

Data Cell	Change From:	Change To:
RESOD	A	R, A
t Prussia, #51	2	
. VI, pp. 26,	32; Table 5, 7	
ACHD	5	3
PRID	D/O	D/0, F
RESOD	WDL	R, WD
vance from the	l Beach, #521	
l. VI, p. 88, T	able 5	
ACHA	10	8
vance through th	ne Outposts, #522	
1. VI, p. 88, T	able 5	
ACHA	8	7
nb Hill-Ouki, #		
. VI, pp. 88,	92; Tables 5, 7	
ACHA	8	7

i	Change From:	Change To:
ACHD	7	6
	•	
PRID	D/O	D/0, F
RESOA	P, S	P
		
RESOD	WDL -	R, WDL
RESOD	,WDL .	R, WDL
	#DL - ocky Crags, #524 - , 92; Tables 5, 7	R, WDL

Data Cell	Change From:	Change To:
PRID	D/0	D/O, F
RESOD	A	R, WDL
chi Ridge-Onaga l. VI, p. 88, T		
ACHD	10	8
ochi Ridge-Onaga ol. VI, pp. 88,		T
АСНА	6	3
PRID	D/0	D/O, F
RESOD	(blank)	R
apanese Countera	ttack, 4-5 May, #528 92; Tables 5, 7	•
ACHA	1	3
		·

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Data Cell	Change From:	Change To:
RESOA	R	P, R, WDL
chi Ridge IV,	529	
ol. VI, p. 88,	Table 5	
ACHD	6	5
nuri Envelopment	, Phase I, #530	
ol. VI, p. 88, T	able 5	
ACHD	7	4
apanese Countera	ttack, 24/25 May, #531	
	92; Tables 5, 7	
ACHA	8	6
		•
ACHD	8	7
	ed.	
RESOA	R	R, WDL
	Dhana TT #500	
	Phase II, #532 92; Tables 5, 7	
ACHD	9	7
	,	'

Data Cell	Change From:	Change To:
RESOA	R, W	P, R
	, Phase III, #533 93; Tables 5, 7	
WINA	(blank)/x	x/(blank)
ACHD	7	5
·		•
Success	(blank)/x	x/(blank)
RESOA	P, S	P
RESOD	(blank)	WDL
l1 95-I, #534		
VI, pp. 89,	93; Tables 5, 7	
WINA	x/(blank)	 x/x

Data Cell	Change From:	Change To:
ACHA	8	7
Success	x/(blank)	x/x
11 95-II, #535 ol. VI, pp. 89,	93; Tables 5, 7	
ACHA	9	8
ACHD	4	5
RESOA	P, S	P
RESOD	(blank)	WDL
aeju-Dake, #536 ol. VI, pp. 89,	93; Tables 5, 7	
ACHA	10	8

Data Cell	Change From:	Change To:
ACHD	3	5
RESOA	P, S	Р
RESOD	(blank)	A
Hills 153 and 1	L5, #537	
Vol. VI, p. 89,	Table 5	
ACHA	10	8
ACHD	3	5
Kabatiya, #551		
/ol. VI, p. 146,	, Table 7	
RESOA	B, WD	В
Abu Ageila-Um Ka	itef, #556	
/ol. VI, pp. 142	2, 146; Tables 5, 7	
ACHA	10	9

Data Cell	Change From:	Change To:
PRID	D/O	D/O, F
•		•
RESOD	WDL	R, WD
Jebel Libni, #5	558	·
Vol. VI, p. 142	2, Table 5	
ACHA	8	7
ACHD	8	7
Bir Hassna-Bir Vol. VI, p. 143		
ACHD	5	3
Bir Hamma-Bir G		
ACHD	6	4
Kerama, #568 Vol. VI, p. 174	, Table 5	
ACHA	7	6

Egyptian Offensive-North, #574

Vol. VI, pp. 185, 189; Tables 5, 7

Data Cell	Change From:	Change To:
ACHD	10	8

PRID	D/0	D/0, F
	1	

Egyptian Offensive-South, #575

Vol. VI, p. 185, Table 5

Data Cell	Change From:	Change To:
ACHD	10	8

Jebel Geneifa, #580

Vol. VI, p. 186, Table 5

ACHA	i	8	7
	1		

ACHD	1	6		1	4	1
1	1		••"	1		

Adabiya, #582

Vol. VI, p. 186, Table 5

ACHA	10	8	-
			;

Suez, #584

Vol. VI, pp. 186, 190; Tables 5, 7

Data Cell	Change From:	Change To:
VINA	x/(blank)	(blank)/x
ACHA	8	3
PRIA	F	F, EE
uccess	x/(blank)	(blank)/x
RESOA	R, WD, S	P, R, WD
Shams, #594		
VI, pp. 197	, 201; Tables 5, 7	
CHD	3	5

ata Cell	Change From:	Change To:
ESOD	WD	(s)
		J. Steward
		Sowhy Stowes

After careful review, it is HERO's judgment that the following assessments and values in the designated data cells in the Consistency Problem Reports should stand.

Breitenfeld I, #6: Vol. II, p. 14, Table 5
ACHA=4

Senef, #35: Vol. II, p. 63, Table 5
ACHA=8

Aughrim, #44: Vol. II, p. 87, Table 5
ACHD=4

Sohr, #60: Vol. II, p. 115, Table 5
ACHD=4

Leuthen, #70: Vol. II, p. 139, Table 5
ACHA=10

Fleurus, #101: Vol. II, p. 195, Table 5
ACHA=6

Austerlitz, #117: Vol. III, p. 11, Table 5
ACHD=10

Auerstadt, #119: Vol. III, p. 11, Table 5
ACHD=10

Albuera, #131: Vol. III, p. 17, Table 5
ACHA=6

Belmont, #173: Vol. III, p. 107, Table 5
WINA=x/(blank); ACHA=6; ACHD=5

Chancellorsville, #196: Vol. III, p. 125, Table 5
ACHD=10

Le Cateau, #267: Vol. IV, p. 59, Table 5
ACHD=4

Somme, Flers-Courcelette, #308: Vol. IV, pp. 139, 141; Tables 5, 7 WINA=x/(blank); ACHA=7; ACHD=5 RESOA=P,S; RESOD=S

Trentino Counteroffensive, #314: Vol. IV, p. 147, Table 7
RESOA=P, S; RESOD=WD, S

Eleventh Isonzo, #323: Vol. IV, pp. 151, 153; Tables 5, 7
WINA=x/(blank); RESOA=P, S; RESOD=WD, S

Meuse-Argonne, Phase I, #366: Vol. IV, p. 202, Table 5
WINA=x/(blank); ACHA=7; ACHD=4

Port of Salerno, #395: Vol. V, p. 23, Table 5 WINA=x/(blank); ACHA=6

Campoleone, #425: Vol. V, p. 70, Table 5 WINA=x/(blank); ACHA=6

Sauer River, #483: Vol. V, p. 147, Table 5 WINA=x/(blank); ACHA=5; ACHD=4

St. Vith, #484: Vol. V, pp. 147, 149; Tables 5, 7
WINA=x/x; ACHA=5; ACHD=5; RESOD=WDL

Kuneitra, #585: Vol. VI, p. 197, Table 5
WINA=x/x; ACHA=6; ACHD=6

Kfar Shams-Tel Antar, #597: Vol. VI, p. 198, Table 5
WINA=x/(blank); ACHA=8; ACHD=2

General Problem Report Footnotes

Nieuport, #1: The KPDA value is the distance over which the attacker was driven back, i.e., from the battlefield to Leffinge.

Noerdlingen I, #10: Spruener, map 44.

Wittstock, #11: The correct KPDA value is 1.0, shown in Table 5, not 1.5, the value shown in Table 3.

Breitenfeld II, #12: Tingsten, map 2.

Tuttlingen, #14: Spruener, map 44.

Jankau, #16: The correct KPDA value is -2.0, shown in Table 5, not 2.0, the value shown in Table 3.

Lens, #19: Aumale, V: map facing p. 704.

Newbury II, #24: Smurthwaite, map, p. 165.

Fehrbellin, #38: Kausler, map, p. 93.

Marsaglia, \$47: O'Callaghan, discussion, p. 177.

Zenta, #48: Czechoslovak Republic, map A.b, p. 272.

Poltava, #49: Ibid., map A.b, p. 271.

Chotusitz, \$56: The correct KPDA value is -2.7, shown in Table 5, not 2.7, the value shown in Table 3.

Hastenbeck, #68: Savory, map, p. 27, and discussion, pp. 27-38.

Minden, #75: Ibid., map, p. 161.

Liegnitz, #80: Duffy, map, p. 228, and discussion, pp. 193-194.

Quebec, #83: Flood, map, p. 4.

Freeman's Farm, #87: The correct KPDA value is 1.0, shown in Table 5, not -1.0, the value shown in Table 3.

Bemis Heights, #89: The correct KPDA value is -3.2, shown in Table 3, not 3.2, the value shown in Table 5.

Rivoli, #107: Chandler, Napoleon, map, p. 117.

Hohenlinden, #116: Dodge, Napoleon, I: map, p. 605.

Eylau, #120: Esposito and Elting, maps 73 and 75.

Fuentes de Onoro, #130: Napier, III: map facing p. 147, and discussion, p. 149.

Bautzen, \$136: The correct KPDA value is 5.0, shown in Table 3, not 3.0, the value shown in Table 5.

La Rothiere, #140: The correct KPDA value is 1.0, shown in Table 3, not -1.0, the value shown in Table 5.

The Thames, #146: The KPDA value is estimated from the discussion in Stanley, p. 210.

San Jacinto, #156: James, map opposite p. 211.

First Winchester, #180: The correct KPDA value is 1.6, shown in Table 5, not 2.0, the value shown in Table 3.

Port Republic, \$182: The correct KPDA value is 1.6, shown in Table 5, not 2.0, the value shown in Table 3.

Seven Pines (Fair Oaks), #183: Esposito, West Point Atlas, I: maps 43a and 43b.

Gaines's Mill, \$185: The correct KPDA value is 0.5, shown in Table 3, not 0, the value shown in Table 5.

Chancellorsville, #196: Esposito, West Point Atlas, I: maps 85 and 91.

Spotsylvania, #203: Ibid., maps 127 and 132.

Le Mans, #228: Maurice, map, p. 449, and discussion, pp. 450-464.

Ulundi, #231: Laband and Thompson, map, p. 94, and discussion, p. 95.

Tel el-Kebir, #233: Featherstone, map, p. 151, and discussion, pp. 150-152.

Adowa, #235: Berkeley, sketch map.

Adrianople, #252: Ford, map, p. 37.

Guadalajara-Brihuega, #255: Coverdale, map 5, opposite p. 227.

The Aisne, #277: Buchan, I: map facing p. 278.

Chouigui Pass, #391: HERO, Comparative Analysis, maps, pp. 152, 154.

Arracourt, #467: Cole, The Lorraine Campaign, map, p. 227.

Sauer River, #483: The correct KPDA value is 3.2, not -3.2, which is a typographical error.

The Defense of Moscow, #489: The correct KPDA value is 5.5, not -5.5, which is a typographical error.

Kantara-Firdan, #573: Dupuy, Elusive Victory, map, p. 427.

Specific Problem Report Footnotes

Preston, #26: See the footnotes to Task 2 for the source of this data.

Killicrankie, \$40: According to Smurthwaite (p. 193) and other sources Dundee had one troop of horse; this has been estimated at 50 troopers, which is consistent with assigned strength in the period. Defender artillery strength and losses are from Smurthwaite, p. 194, and Kinross, p. 100.

Walcourt, #41: Defender artillery strength is from Chandler, Marlborough, Appendix A.

Fleurus, #42: Cavalry and artillery strengths are from Bodart, p. 112, and Muller.

Aughrim, #44: Cavalry strengths are from Walton, p. 156.

Minden, \$75: Cavalry strengths are from Bodart, p. 231

Camden, #91: Cavalry strengths are estimates based on order of battle and strength data given in Boatner, American Revolution, pp. 159-170.

Eutaw Springs, #95: Cavalry strengths are from Boatner, American Revolution, pp. 350-356.

Five Forks, #217: See the footnotes to Task 2 for the source of this data.

Le Cateau, #267: See the footnotes to Task 2 for the source of this data.

First Dardanelles Landing, \$300: See the footnotes to Task 2 for the source of this data.

Suvla Bay, #301: See the footnotes to Task 2 for the source of this data.

<u>Seille-Nied, #470:</u> The correct value for defender main battle tank strength is 71. The lack of an entry in the original data base is a typographical error.

Consistency Problem Report Footnotes

The following sources were used in revising assessments and values for the indicated engagements in the original data base.

Chotusitz, #56: Dupuy, Frederick the Great, pp. 44-46.

Inkerman, #166: Kinglake, VI:64-466, passim.

Brandy Station, #198: Downey, pp. 50-220, passim.

Lodz, #286: Dupuy, Genius, pp. 156-158.